

Buoy_Metadata_and_Aggregation

The Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology In-situ Observing Platform Support Centre (JCOMMOPS) provides a [list] of WMO Allocation IDs as a text file:

JCOMMOPS WMO-PLATFORM cross reference list as of 2009-07-12 for WMO number still allocated in the WMO; TELECOM ID; TELECOM SYSTEM; PTFM NAME; PTFM FAMILY; PTFM TYPE; CONTACT NAME; EMAIL; PROGRAM; ROLE; AGEN

10004;MD10004;METEOSAT;MB:10004-BSH;FIXED;METSTATION;THORSTEN KNUTZ;KNUTZ@ZAM.UNI-KIEL.DE;GERMANY
10004;MD10004;METEOSAT;MB:10004-BSH;FIXED;METSTATION;THORSTEN KNUTZ;KNUTZ@ZAM.UNI-KIEL.DE;GERMANY
10007;MB:10007;METEOSAT;MB:10007-BSH;FIXED;METSTATION;THORSTEN KNUTZ;KNUTZ@ZAM.UNI-KIEL.DE;GERMANY
10007;MB:10007;METEOSAT;MB:10007-BSH;FIXED;METSTATION;THORSTEN KNUTZ;KNUTZ@ZAM.UNI-KIEL.DE;GERMANY
10044;;MB:10044;MB;MB;THORSTEN KNUTZ;KNUTZ@ZAM.UNI-KIEL.DE;GERMANY MB;Program Manager;KIEL UNIVE
10044;;MB:10044;MB;MB;THORSTEN KNUTZ;KNUTZ@ZAM.UNI-KIEL.DE;GERMANY MB;Programme GTS Coordinator;K
11504;89605;ARGOS;ARGOS:89605;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Program Manage
11504;89605;ARGOS;ARGOS:89605;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Programme GTS
11505;89606;ARGOS;ARGOS:89606;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Program Manage
11505;89606;ARGOS;ARGOS:89606;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Programme GTS
11506;89607;ARGOS;ARGOS:89607;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Program Manage
11506;89607;ARGOS;ARGOS:89607;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Programme GTS
11507;89608;ARGOS;ARGOS:89608;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Program Manage
11507;89608;ARGOS;ARGOS:89608;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Programme GTS
11508;89609;ARGOS;ARGOS:89609;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Program Manage
11508;89609;ARGOS;ARGOS:89609;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Programme GTS
11509;89648;ARGOS;ARGOS:89648;DB;DB;James Duke;james.a.duke@navy.mil;NAVOCEANO-DB-2;Program Manage

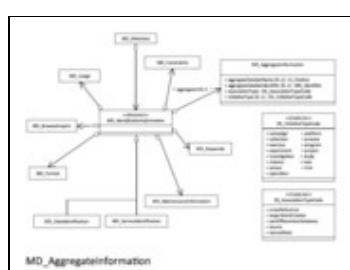
that can be easily imported into Excel using instructions on the download page [[Example](#)].



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This Figure shows two pivot tables created from the spreadsheet. The one on the left shows the number of stations by Program. The one on the right shows the number of stations by Platform Family and Type. These pivot tables are generated by running the script in the main body.

ISO Aggregation Object



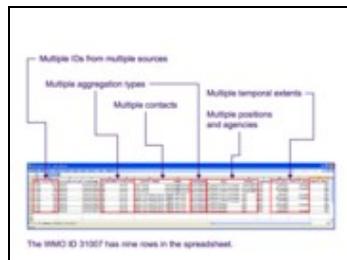
MD_AggregateInformation Object

ISO Aggregation Object

Buoy_Metadata_and_Aggregation

The ISO AggregateInformation object provides a powerful mechanism for grouping multiple metadata records or information in a single metadata record into sets based on a number of relationships described by the AssociationType and InitiativeTypeCodes. Note that several of these InitiativeTypeCodes match the aggregation fields used to create the pivot tables shown above. Note also that the sets are identified by MD_Identifiers which suggests that they could have metadata records of their own.

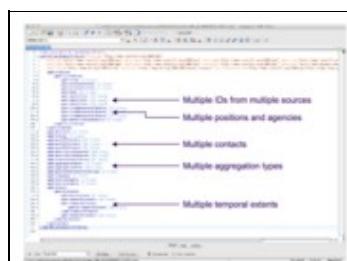
Drilling Down in Excel



Drill Down in Excel

Drilling down in the spreadsheet shows nine rows for WMO ID 31007. It is surprising that a single WMO ID can correspond to different stations at different times, but it is a fact. The content of these rows shows multiple occurrences of most of the fields describing these stations.

Drilling Down in XML



Drill Down in XML

The information in the spreadsheet can be represented in the ISO MD_DataIdentification section using

- multiple MD_Identifiers for identifiers from different sources,
- multiple CI_ResponsibleParties for people in different positions in different agencies,
- multiple pointsOfContact for people in different positions in different agencies,
- multiple MD_AggregationInformation objects for Program and Platform,
- multiple Ex_Extents for multiple time periods.